IN THE CLAIMS:

Please amend the claims as follows:

1. **(Currently amended)** A method, comprising overlapping a plurality of direct-sequence spread-spectrum signals using carrier frequencies that are i) each precisely an integer multiple of a bit rate and ii) orthogonally spaced relative to an integral multiple of a the bit rate rather than a chip rate,

wherein the chip rate is an integer multiple of the bit rate and is greater than or equal to two.

2. **(Original)** A method of claim 1, further comprising common frequency-hopping encoding said plurality of direct-sequence spread-spectrum signals.

3. **(Original)** The method of claim 1, further comprising individual, differential frequency-hopping encoding each of said plurality of direct-sequence spread-spectrum signals.

4. **(Currently amended)** The method of claim 1, wherein ~~the~~ frequency-hopping modulation is performed in a continuous-phase manner.

5. **(Original)** The method of claim 1, further comprising time-hopping encoding said plurality of direct-sequence spread-spectrum signals.

6. **(Original)** The method of claim 5, further comprising frequency-hopping encoding said plurality of direct-sequence spread-spectrum signals.

7. **(Original)** The method of claim 1, wherein overlapping includes synchronously allocating each of a plurality of users to one of a plurality of orthogonal channels.

8. **(Previously presented)** The method of claim 1, wherein overlapping includes encoding a frequency shift in a subset of bits that define a code word.

9. **(Previously presented)** The method of claim 1, wherein overlapping includes establishing a bit- clock synchronization; and

further comprising multiplying an incoming signal by an estimate of a desired signal; and integrating a product over an integral multiple of a bit period rather than a chip rate.

10. **(Original)** The method of claim 1, further comprising retransmitting one of said plurality of direct-sequence spread-spectrum signals.

11. **(Original)** The method of claim 1, further comprising checking one of said plurality of direct-sequence spread-spectrum signals with an error-correcting code.

12-14. **(Canceled)**

15. **(Currently amended)** A computer program, comprising computer- or machine-readable program elements translatable for implementing a method of signal transmission including overlapping a plurality of direct-sequence spread-spectrum signals using carrier frequencies that are i) each precisely an integer multiple of a bit rate and ii) orthogonally spaced relative to an integral multiple of a the bit rate rather than a chip rate.

wherein the chip rate is an integer multiple of the bit rate and is greater than or equal to two.

16-24. **(Canceled)**

25. **(Currently amended)** A computer program comprising computer program means adapted to perform the steps of overlapping a plurality of direct-sequence spread-spectrum signals using carrier frequencies that are i) each precisely an integer multiple of a bit rate and ii) orthogonally spaced relative to an integral multiple of ~~a~~ the bit rate rather than a chip rate,

wherein the chip rate is an integer multiple of the bit rate and is greater than or equal to two.

26. **(Original)** A computer program as claimed in claim 25, embodied on a computer-readable medium.

27. **(Cancel)**

28. **(Currently amended)** A method, comprising, providing a direct-sequence spread-spectrum communication system that increases a number of users by utilizing a plurality of closely spaced orthogonal carriers that are i) each precisely an integer multiple of a bit rate and ii) produce overlapping spectra,

wherein a spacing of the plurality of orthogonal carriers is based on an integral multiple of the bit rate and not a chip rate and

wherein the chip rate is an integer multiple of the bit rate and is greater than or equal to two.

29. **(Original)** The method of claim 28, further comprising frequency-hopping encoding the overlapping spectra.

30. **(Original)** The method of claim 28, further comprising time-hopping encoding the overlapping spectra.

31. **(Original)** The method of claim 30, further comprising frequency-hopping encoding the overlapping spectra.

32. **(Currently amended)** A method, comprising overlapping a plurality of synchronous direct-sequence spread-spectrum signals using carrier frequencies with zero relative phase differences that are i) each precisely an integral multiple of 1/2 a bit rate and ii) orthogonally spaced relative to an integral ~~sub-multiples~~ multiple of ~~at least one~~ ½ the bit rate rather than a chip rate,

wherein the chip rate is an integral multiple of the bit rate and is greater than or equal to two.

33. **(Currently amended)** The method of claim 32, ~~wherein the plurality of synchronous direct-sequence spread-spectrum signals are overlapped relative to an integral sub-multiple of a common bit rate~~ further comprising common frequency-hopping encoding said plurality of direct-sequence spread-spectrum signals.

34. **(Currently amended)** A method, comprising overlapping a plurality of synchronous direct-sequence spread-spectrum signals using carrier frequencies with relative

phase differences that are i) each precisely an integral multiple of $1/2^x$ a bit rate, where x is a counting number and ii) orthogonally spaced relative to ~~one-half~~ the integral multiple of $1/2^x$ of a the bit rate rather than a chip rate,

wherein the chip rate is an integral multiple of the bit rate and is greater than or equal to two.

35. **(New)** The method of claim 32, further comprising time-hopping encoding said plurality of direct-sequence spread-spectrum signals.

36. **(New)** The method of claim 34 further comprising common frequency-hopping encoding said plurality of direct-sequence spread-spectrum signals.

37. **(New)** The method of claim 34, further comprising time-hopping encoding said plurality of direct-sequence spread-spectrum signals.